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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/564,142	01/10/2006	Laurence H. Gross	63287A	6125

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EXAMINER

MAYO III, WILLIAM H

ART UNIT PAPER NUMBER

2831

DATE MAILED: 07/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/564,142

Applicant(s)

GROSS, LAURENCE H.

Examiner

William H. Mayo III -

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☐ Claim(s) ____ is/are rejected.
- 7) ☒ Claim(s) 1-18 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____

DETAILED ACTION

Priority

1. Acknowledgment is made of applicant's claim for domestic and provisional priority under 35 U.S.C. 120 and 35 USC 119(e), respectively. The domestic application PCT/US04/23723 being filed July 24, 2004 and the provisional application being filed July 24, 2003, as Application No. 60/490,314.

Specification

2. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

3. The abstract of the disclosure is objected to because in lines 1-2, the abstract state the terms "comprising" and "comprises", which is improper language for the abstract. The applicant should replace the terms with the terms ~~—having—~~ and ~~—has—~~ respectively, to provide the abstract with proper language. Correction is required. See MPEP § 608.01(b).

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-18 are rejected under 35 U.S.C. 102(b) as being anticipated by Jow et al (Pat Num WO02/27732, herein referred to as Jow). Jow discloses a cable comprising one or more conductors having improved resistance to water trees (Page 1 under Background Information). Specifically, with respect to claim 1, Jow discloses a cable comprising one or more electrical conductors or core wherein each conductor or the core is surrounded by a layer of insulation comprising an olefinic polymer (i.e. VLDPE, very low density polyethylene, abstract) having a density in the range of 0.880-0.915 grams per cubic cm (i.e. 0.860-0.915, Page 2, lines 7-8), a melting temperature of at least 115 degrees Celsius (i.e. the insulation is extruded in an extruder being at least 130 degrees Celsius, Page 7, 10-12), a melt index in the range of 0.5-10 grams per 10 minutes (i.e. 0.1-20 grams per 10 minutes, Page 3, lines 28-29), a polydispersity index of at least 3.5 (i.e. 3.9, Page 10), and inherently discloses a crystallization analysis soluble fraction of less than 35% weight (prior art reference discloses all of the claimed structure and therefore must have the same characteristics as the claimed invention). With respect to claim 2, Jow discloses that the olefinic polymer is a polyethylene (i.e. VLDPE, Page 2, lines 7-9). With respect to claim 3, Jow discloses that the olefinic polymer (i.e. VLDPE, very low density polyethylene, abstract) has a density in the range

of 0.895-0.905 grams per cubic cm (i.e. 0.860-0.915, Page 2, lines 7-8). With respect to claim 4, Jow discloses that the olefinic polymer (i.e. VLDPE, very low density polyethylene, abstract) has a density in the range of 0.895-0.905 grams per cubic cm (i.e. 0.900-0.905, Page 2, lines 7-8). With respect to claim 5, Jow discloses that the olefinic polymer (i.e. VLDPE, very low density polyethylene, abstract) has a melting temperature of greater than 115 degrees Celsius (i.e. the insulation is extruded in an extruder being at least 130 degrees Celsius, Page 7, 10-12). With respect to claim 6, Jow discloses that the olefinic polymer (i.e. VLDPE, very low density polyethylene, abstract) has a melting temperature of at least 120 degrees Celsius (i.e. the insulation is extruded in an extruder being at least 130 degrees Celsius, Page 7, 10-12). With respect to claim 7, Jow discloses that the olefinic polymer (i.e. VLDPE, very low density polyethylene, abstract) has a melt index in the range of 1-5 grams per 10 minutes (i.e. 0.1-20 grams per 10 minutes, Page 3, lines 28-29). With respect to claim 8, Jow discloses that the olefinic polymer (i.e. VLDPE, very low density polyethylene, abstract) inherently has a crystallization analysis soluble fraction of less than 32% weight (prior art reference discloses all of the claimed structure and therefore must have the same characteristics as the claimed invention). With respect to claim 9, Jow discloses that the olefinic polymer (i.e. VLDPE, very low density polyethylene, abstract) has a polydispersity index of at least 5.0 (i.e. 3.9, Page 10). With respect to claim 10, Jow discloses that the olefinic polymer (i.e. VLDPE, very low density polyethylene, abstract) may have comonomer distribution (Page 2, lines 21-22). With respect to claim 11, Jow discloses that the olefinic polymer (i.e. VLDPE, very low density polyethylene, abstract)

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is prepared by a Ziegler-Natta catalyst (Page 3, lines 16-18). With respect to claim 12, Jow discloses that the olefinic polymer (i.e. VLDPE, very low density polyethylene, abstract) is crosslinkable (Page 5, lines 20-21). With respect to claim 13, Jow discloses that the olefinic polymer (i.e. VLDPE, very low density polyethylene, abstract) is a thermoplastic (polyethylene is a thermoplastic material). With respect to claim 14, Jow discloses a cable comprising one or more electrical conductors or core wherein each conductor or the core is surrounded by a layer of insulation being VLDPE, very low density polyethylene, having a density in the range of 0.900-0.905 grams per cubic cm (i.e. 0.860-0.915, Page 2, lines 7-8), a melting temperature of greater than 120 degrees Celsius (i.e. the insulation is extruded in an extruder being at least 130 degrees Celsius, Page 7, 10-12), a melt index in the range of 1-5 grams per 10 minutes (i.e. 0.1-20 grams per 10 minutes, Page 3, lines 28-29), a polydispersity index of at least 4 (i.e. 5.0, Page 10), and inherently discloses a crystallization analysis soluble fraction of less than 35% weight (prior art reference discloses all of the claimed structure and therefore must have the same characteristics as the claimed invention). With respect to claim 15, Jow discloses that the cable comprises one or more electrical conductors or core wherein each conductor or the core is surrounded by a layer of insulation being VLDPE, very low density polyethylene, inherently having 1% secant flexural modulus at ambient less than 15,000 psi and a dynamic elastic modulus at 150 degree Celsius of at least 4×10^7 dyne/square centimeter (prior art reference discloses all of the claimed structure and therefore must have the same characteristics as the claimed invention). With respect to claim 16, Jow discloses that the layer of insulation is VLDPE, which

inherently has 1% secant flexural modulus at ambient less than 10,000 psi (prior art reference discloses all of the claimed structure and therefore must have the same characteristics as the claimed invention). With respect to claim 17, Jow discloses that the olefinic polymer is a VLDPE, very low density polyethylene, which inherently has a dynamic elastic modulus at 150 degree Celsius of at least 5×10^7 dyne/square centimeter (prior art reference discloses all of the claimed structure and therefore must have the same characteristics as the claimed invention). With respect to claim 18, Jow discloses that the layer of insulation is VLDPE, very low density polyethylene, inherently having 1% secant flexural modulus at ambient less than 10,000 psi and a dynamic elastic modulus at 150 degree Celsius of at least 5×10^7 dyne/square centimeter (prior art reference discloses all of the claimed structure and therefore must have the same characteristics as the claimed invention).

Conclusion


6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. They are Tau et al (Pat Num 2003/0194575), Babb et al (Pat Num 6,143,829), Hoenig et al (Pat Num 6,376,623), Cree (Pat Num 5,852,116), Shimba et al (Pat Num 4,468,435), Cloetens et al (Pat Num 4,859,810), Wilkus et al (Pat Num 4,913,962), Cope (Pat Num 6,337,367), Martensson et al (Pat Num 6,369,129), Gustafsson (Pat Num 6,797,886), and Kaspar et al (Pat Num 2003/0018148), all of which disclose various cable compositions.

Communication

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to William H. Mayo III whose telephone number is (571)-272-1978. The examiner can normally be reached on M-F 8:30am-6:00 pm (alternate Fridays off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dean Reichard can be reached on (571) 272-2800 ext 31. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


William H. Mayo III
Primary Examiner
Art Unit 2831

WHM III
June 21, 2006